Responsiveness Summary Concerning EPA's March 31, 2005 Public Notice of Final Decisions to Add Waters and Pollutants to Louisiana's 2002 and 2004 Section 303(d) Lists

Public Participation Activity Conducted

On April 12, 2005, EPA Region 6 published a notice in the Federal Register at Volume 70, Number 69, pages 19079 - 19080. This public notice requested comments from the public on EPA's Final Decisions to Add Waters and Pollutants to Louisiana's 2002 and 2004 Section 303(d) Lists.

Summary of Actions

No further action taken.

Summary of Public's Comments

The following persons provided written comments during the comment period.

Barbara Romanowsky, Administrator
Water Quality Assessment Division
State of Louisiana Department of Environmental Quality
P.O. Box 4314
Baton Rouge, Louisiana 70821-4314

Maureen N. Harbourt
Counsel to PPG Industries, Inc.
Kean, Miller, Hawthorne, D'Armond, McCowan & Jarman, L.L.P.

Louisiana Chemical Association
One American Place, Suite 2040
Baton Rouge, Louisiana 70825

Vicki E. Murillo
Program Director for Water Resources
Gulf Restoration Network
338 Baronne St., Suite 200
New Orleans, LA 70112

Nancy Stoner
Director, Clean Water Project
Natural Resource Defense Council
1200 New York Avenue, NW, Suite 400
Washington, DC 20005

Summary of Public's Comments (continued)

Paul D. Coreil
Vice Chancellor and Director
Louisiana State University Ag Center
P.O. Box 25203
Baton Rouge, LA 70894-5203

A. Methodology for Determining Application of Marine Water Quality Criteria

Public Comments

Louisiana Department of Environmental Quality, Ms. Barbara Romanowsky, Administrator, Water Quality Assessment Division

EPA has added 5 subsegments, which Louisiana considers to fall into the freshwater criteria category, to Louisiana's 2002 303(d) List for exceeding marine dissolved copper standards. EPA states that applying marine criteria only to waters which have a salinity greater than 16 parts per thousand (ppt) is "not consistent with the updated compilation of the nationally recommended water quality criteria" and it is "inconsistent with the Louisiana water quality standards."

The metals criterion used by Louisiana for assessments was determined by taking into consideration the average salinity of a subsegment over the most recent 2-year period. If the average salinity was less than 16 ppt, freshwater criteria was used; if the average salinity was 16 ppt or greater, the marine criteria was used. The 16 ppt was taken from the definition of Saline Marshes in Louisiana's Environmental Regulatory Code (LAC:33:IX:1105). This regulation, using the vegetation and salinity described in the definition, is what was originally used by Louisiana to define "estuarine" subsegments. Therefore, it is indicative of what Louisiana considers to be representative of marine conditions for assessment purposes. However, because of the continuous coastal changes occurring in Louisiana, the "estuarine" designation may no longer be accurate for some subsegments. This is why Louisiana moved away from the subsegment description of estuarine when determining where to apply marine or freshwater criteria. The fact that Louisiana's coastline is constantly changing emphasizes the importance of analyzing the most recent salinity data for these subsegments in order to apply the appropriate metal criteria, whether it be for freshwater or marine.

On page 5 of EPA's 2004 List Decision Document, under the description of why five subsegments were added to Louisiana's 2002 §303(d) List for dissolved copper, EPA indicated it used "the more stringent of the freshwater or saltwater criteria where the salinity is between 1 and 10 ppt." On page 12 of its 2002 List Decision Document EPA specifies that this interpretation came from the "updated compilation of the nationally recommended water quality criteria." EPA should realize that guidance and recommendations do not override State regulations and State interpretation of those regulations. EPA's choice of "the more stringent" criteria fails to define what is considered marine water and what is considered freshwater for purposes of metals criteria assessments; Louisiana implemented this step by use of its definition of saline marshes. Instead, EPA sidesteps the issue by taking the most conservative position.

In addition to arguing for the use of "the more stringent" criteria, EPA also argues that Louisiana should have used the definition for marine water biota found at LAC 33:IX:1105. This definition was never intended for use on metals criteria assessment issues. Rather, this definition is intended to support subsequent references to those aquatic species used in acute and chronic whole effluent toxicity testing (LAC 33:IX.1121.B.3.b.iii).

EPA's argument that marine criteria should be applied to waters between 1 ppt and 10 ppt also flies in the face of their own criteria guidance for copper. In this instance, the marine copper criteria were developed using species that do not survive in this lower salinity range. Rather, the ten most sensitive species used for EPA's copper criteria guidance only survive at salinities greater than 16 ppt, and certainly do not survive at salinities between 1 and 10 ppt. It was these ten species that drove the original copper criteria calculations. In order of most sensitive to least sensitive, these include:

Blue mussel (Mytilus adulis)
Summer flounder (Paralichthys dentatus)
Eastern oyster (Crassostrea virginica)
Pacific oyster (Crassostrea gigas)
Soft-shell clam (Mya arenaria)
Copepod (Acartia tonsa)
Dungeness crab (Cancer magister)
Red abalone (Haliotis rufescens)
Black abalone (Haliotis cracherodii)
American lobster (Homanus americanus)

All five of EPA's additions to the §303(d) list for copper, while certainly estuarine in nature, cannot be construed as being marine water bodies. In fact one of EPA's additions, Bayou Barataria/Barataria Waterway (020802), is approximately 20 miles inland from the Gulf of Mexico. Therefore, they should not be assessed using marine metals criteria.

What EPA also failed to note is that the Louisiana Department of Environmental Quality (LDEQ) repeatedly told EPA they were misinterpreting Louisiana's regulations in this matter. As is noted in comment 2, below, the Secretary of LDEQ should be given deference in interpreting state regulations. In this instance, the Secretary determined that marine metals criteria should be used only when the average salinity of the water body is at or above 16 ppt.

Louisiana Chemical Association, Mr. Henry T. Graham, Jr., Director of Legal and Environmental Affairs

In preparing its 303(d) lists, LDEQ used between 3 and 16 parts per thousand to determine what state waters are subject to marine water quality criteria, rather than freshwater criteria. *See, e.g.*, definitions of saline marshes and intermediate marshes in LAC 33:IX.1105. In essence, (a) if a waterbody normally has interstitial water salinity in excess of 16 parts per thousand, LDEQ considers it a marine waterbody and applies marine water quality criteria, (b) if the waterbody normally has interstitial water salinity between 3 and 16 parts per thousand, LDEQ makes a case-by case evaluation to determine whether the waterbody should be considered marine or fresh for the application of water quality criteria, and (c) if the waterbody normally has interstitial water salinity less than 3 parts per thousand, LDEQ considers it a fresh waterbody and applies fresh water quality criteria. EPA has rejected this methodology and insists that LDEQ must use marine water quality criteria whenever the salinity of the affected waterbody is between 1 and 10 parts per thousand. *See, e.g.*, definition of marine water biota in LAC 33:IX.1105.

LCA submits that as the water quality standards in question are state regulations promulgated by LDEQ, LDEQ's interpretation thereof must be given "controlling weight" unless such interpretation is clearly erroneous or inconsistent with the water quality standards themselves; provided, of course, that such LDEQ interpretation does not violate the federal constitution or statutes. *See, e.g., Stinson v. United States*, 508 U.S. 36, 44-45, 113 S. Ct. 1913, 1918-1919(1993). The above-described LDEQ methodology for determining what state waters are subject to marine water quality criteria, rather than freshwater criteria, is not a clearly erroneous or inconsistent interpretation of the Louisiana water quality standards. Nor is such methodology violative of the federal constitution or statutes. Thus, at a minimum, LCA submits that the LDEQ methodology should control and that any waterbodies included by EPA on the 303(d) Lists solely because of the use of the EPA methodology, rather than the controlling LDEQ methodology, should be removed from such lists. Thus, the following five waterbodies should be removed from the 303(d) Lists: (a) Bayou Barataria Waterway-Intercoastal Waterway to Bayou Rigoletts; (b) Bayou Cane US Hw 190 to Lake Pontchartrain; (c) Lake Pontchartrain West of Hw 11 Bridge; (d) Bayou Trepagnier - Norco to Bayou LaBranche; (e) Duncan Canal - Parish Canal from Kenner Corp. limits to Lake Pontchartrain.

EPA's Response to Comments

1. Basis for EPA's Decision to Add Waters to Louisiana's 2002 section 303(d) List

As previously outlined in the March 31, 2005 DECISION DOCUMENT FOR LOUISIANA'S 2002 §303(d) LIST, page 12 of 20, starting with this list, LDEQ reinterpreted the appropriateness of applying marine criterion in estuarine waters. For

purposes of developing the Louisiana Integrated Report, LDEQ applied the marine criterion only to waters where the salinity of the water was greater than 16 parts per thousand (ppt). EPA finds that this interpretation is not consistent with the updated compilation of nationally recommended water quality criteria cited above and is inconsistent with the Louisiana water quality standards.

LAC:33:IX:1105 defines "Marine Water Biota" as "those aquatic life species whose populations typically inhabit waters with salinities equal to or greater than 2 parts per thousand including but not limited to characteristic fishes, invertebrates and wildlife of coastal waters and the Gulf of Mexico." Furthermore, LAC:33:IX:1113C.6.b. provides that "The criteria for protection of aquatic life are based on acute and chronic concentrations in fresh and marine waters specified in EPA criteria documents."

Based on the definition of marine water biota cited above, it is reasonable that the use of the marine criterion would be triggered by salinities greater than the 2 ppt concentration cited in the definition of Marine water Biota. Additionally, EPA in the document, "National Recommended Water Quality Criteria: 2002" issued the following "National Guidance on the Applicability of Freshwater and Saltwater Criteria." EPA recommends that the aquatic life criteria in this compilation apply as follows:

1. For water in which the salinity is equal to or less than 1 part per thousand (ppt) 95% or more of the time, the applicable criteria are the freshwater criteria;
2. For water in which the salinity is equal to or greater than 10 ppt 95% or more of the time, the applicable criteria are the saltwater criteria;
3. For water in which the salinity is between 1 and 10 ppt the applicable criteria are the more stringent of the freshwater or saltwater criteria, as described in items (1) and (2) of this section. However, an alternative freshwater or saltwater criteria may be used if scientifically defensible information and data demonstrate that on a site-specific basis the biology of the water body is dominated by freshwater aquatic life and that freshwater criteria are more appropriate; or conversely, the biology of the water body is dominated by saltwater aquatic life and that saltwater criteria are more appropriate.

Since the Louisiana criteria for metals specifically cite the use of EPA criteria documents it is reasonable to use the clarification language found in EPA's *National Recommended Water Quality Criteria: 2002*[1] for guidance in application of the EPA criteria.

2. <u>EPA's Application of the More Stringent of the Freshwater and Saltwater Criteria</u>

EPA in its decision to apply the more stringent of the freshwater or marine criteria recognizes that alternative freshwater or saltwater criteria may be used if scientifically

[1] U.S. Environmental Protection Agency. 2002. National recommended water quality criteria: 2002. EPA 822-R-02-047. National Technical Information Service, Springfield, Virginia.

defensible information and data demonstrate that on a site-specific basis the biology of the water body is dominated by freshwater aquatic life and that freshwater criteria are more appropriate; or conversely, the biology of the water body is dominated by saltwater aquatic life and that saltwater criteria are more appropriate. However, requiring the State to study to a level of specificity each individual water body to ensure that the criteria applicable to that water are sufficiently detailed and individualized to fully protect the water's designated uses seems unreasonable. Consequently, EPA's decision to apply the more stringent of the two criteria to water bodies with salinities between 1 and 10 ppt seems a reasonable approach to applying freshwater and marine criteria.

3. EPA's *Ambient Aquatic Life Water Quality Criteria for Copper*

EPA's *Ambient Aquatic Life Water Quality Criteria for Copper*[2] was not limited to saltwater genera tolerant of salinities greater than 16 parts per thousand (ppt) as suggested by the commenter. Rather, EPA's criteria document for copper considered available tests for the toxicity of copper using genera tolerant for a broad range of salinities. For example, the Saltwater Acute Value for Copper (5.8 µg/L) was established using the euryhaline Blue mussel (*Mytilus adulis*).[3] Furthermore, the commenter was inaccurate regarding the statement that "…the ten most sensitive species used for EPA's copper criteria guidance only survive at salinities greater than 16 ppt, and certainly do not survive at salinities between 1 and 10 ppt…" Listed are the ten species noted by the commenter used in EPA's *Ambient Aquatic Life Water Quality Criteria for Copper* document, with the appropriate range of salinities required for survival.

Species surviving in salinities of 0 – 16 ppt:[4]

(a) **Summer flounder** (*Paralichthys dentatus*) have been stocked in fresh water and are commonly found in upstream portions of tidally influenced systems.
(b) **Blue mussel** (*Mytilus adulis*) euryhaline and commonly found at lower salinities.
(c) **Eastern oyster** (*Crassostrea virginica*) prefers salinities around 15 ppt, but is highly tolerant of lower values.
(d) **Copepod** (*Acartia tonsa*) has a broad salinity tolerance, 0 – 16 ppt.[5]
(e) **Soft-shell clam** (Mya arenaria) euryhaline and commonly found at lower salinities.[6]

[2] U.S. Environmental Protection Agency. 1984. Ambient water quality criteria for copper. EPA 440/5-84-031. National Technical Information Service, Springfield, Virginia.
[3] Ibid. PP. 10-11
[4] U.S. Environmental Protection Agency. 1984. Ambient water quality criteria for copper. EPA 440/5-84-031. National Technical Information Service, Springfield, Virginia. PP. 55-57.
[5] Zaiko A. 2004. Acartia tonsa. In: Baltic Sea Alien Species Database. S. Olenin, E. Leppakoski and D. Daunys (eds.).
[6] Newell, C.R., and H. Hidu. 1986. Species profiles: life histories and environmental requirements of coastal fishes and invertebrates (North Atlantic)---softshell clam. U.S. Fish Wildl. Serv. Biol. Rep. 82(11.53). U.S. Army Corps of Engineers, TR EL-82-4. 17 PP.

Species surviving in salinities >16 ppt:[7]

(a) **Dungeness crab** (Cancer magister)[8]
(b) **Pacific oyster** (Crassostrea gigas)[9]
(c) **American lobster** (Homanus americanus)[10]
(d) **Red abalone** (Haliotis rufescens) and **Black abalone** (Haliotis cracherodii)

B. Application of Dissolved Oxygen Criteria

Public Comments

Louisiana Department of Environmental Quality, Ms. Barbara Romanowsky, Administrator, Water Quality Assessment Division

EPA has added 39 subsegments to Louisiana's 2002 303(d) List and an additional 14 subsegments to Louisiana's 2004 303(d) List for not meeting dissolved oxygen (DO) standards. EPA does not agree with Louisiana's assessment method interpretation of the standards statement that "Naturally occurring variations below the criterion specified may occur for short periods" (LAC 33:IX.1113.C.3). Instead, EPA has come up with its own interpretation. EPA has thrown out Louisiana's results and reassessed all of Louisiana's DO information using an Exact Binomial Test for Minimum Dissolved Oxygen.

Interestingly, EPA's use of the Binomial Test contradicts their objection to Louisiana's DO assessment method. On page 4 of its 2002 §303(d) Decision Documents, EPA states that Louisiana's DO assessment method is "inconsistent" with State regulations because the regulations state "…the DO concentration shall be at or above 5 mg/L" (LAC 33:IX.1113.C.3.a.). While it is true that Louisiana's DO assessment method does allow for concentrations below 5 mg/L, it is equally true that EPA's use of the Binomial Test also allows for concentrations below 5 mg/L. Therefore, it is illogical for EPA to argue that Louisiana's DO assessment method is inconsistent with State regulations when in fact EPA's own assessment method is also inconsistent with their strict, and incorrect, interpretation of Louisiana's regulations.

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[7] U.S. Environmental Protection Agency. 1984. Ambient water quality criteria for copper. EPA 440/5-84-031. National Technical Information Service, Springfield, Virginia. PP. 55-57.
[8] Pauley, G.B., DA Armstrong, R. Van Citter, and G.L. Thomas. 1989. Species profiles: life histories and environmental requirements of coastal fishes and invertebrates (Pacific Southwest)—Dungeness crab. U.S. Fish Wildl. Serv. Biol. Rep. 82(11.121). U.S. Army Corps of Engineers, TR EL-82-4. 20 PP.
[9] Pauley, G.B., B. Van Der Raay, and D. Troutt. 1988. Species profiles: life histories and environmental requirements of coastal fishes and invertebrates (Pacific Northwest)--Pacific oyster. U.S. Fish Wildl. Serv. Biol. Rep.
82(11.85). U.S. Army Corps of Engineers, TR EL-82.4. 28 PP.
[10] MacKenzie, C., and J.R. Moring. 1985. Species profiles: life histories and environmental requirements of coastal fishes and invertebrates (North Atlantic)--American lobster. U.S. Fish Wildl. Serv. Biol. Rep. 82(11.33). U.S. Army Corps of Engineers, TR EL-82-4. 19 PP.

Louisiana Department of Environmental Quality (continued)

In the past, States have been allowed by EPA to interpret their water quality regulations for assessment purposes. In the case of Louisiana, a declaratory ruling citing a State appeals court case [Matter of Recovery I., Inc., 93-0441, p. 11 (La. App. 1 Cir. 4/8/94)] and a U.S. supreme court case [Chevron, U.S.A., Inc. v. Natural Resources Defense Council, Inc., 467 U.S. 837, 844 (1984)] has established that deference should be given to LDEQ's administrative interpretations of its own statutes and regulations. It is likely that most States can make a similar claim regarding their water quality regulations. Therefore, by extension, the Secretary determines or "interprets" the proper method with which to assess water quality, based on the State's water quality criteria. Once established, that interpretation should stand when the interpretation is determined to be reasonable, that is, not arbitrary, capricious, or manifestly contrary to the Clean Water Act and supporting regulation.

Because LDEQ disagrees with EPA's interpretation of Louisiana's water quality regulations with regard to marine metals criteria and DO assessments, LDEQ will not develop TMDLs for the subsegments EPA has chosen to add to Louisiana's 2002 and 2004 §303(d) Lists.

Louisiana Chemical Association, Mr. Henry T. Graham, Jr., Director of Legal and Environmental Affairs

In preparing its 303(d) lists, LDEQ determined that a waterbody met dissolved oxygen ("DO") state water quality standards if the median DO concentration for the waterbody was no greater than 5 mg/L with no more than 10% of all samples less than 3 mg/L, based on monthly samples taken over a whole year. EPA has rejected this methodology and insists that the state DO water quality standard is a 5.0 mg/L minimum, not a 5 mg/L median.

LDEQ's methodology is intended to account for naturally occurring variations in DO levels in state waterbodies. The Louisiana water quality criteria provide that "Although naturally occurring variations in water quality may exceed criteria, water quality conditions attributed to human activities must not exceed criteria when flows are greater than or at critical conditions." LAC 33:IX.1113.C. EPA insists that monthly sampling is an inappropriate means of assessing naturally occurring DO variations and that the correct sampling methodology would be within the natural daily cycle. However, EPA made no independent study to determine that the DO samples exceeding the criteria were not caused by natural variation. EPA conducted only a statistical analysis of the LDEQ data. Based on its rejection of the DO methodology, EPA has listed 38 waterbodies on the 303(d) Lists as impaired for failure to meet the DO water quality standards.

LCA submits that EPA cannot simply devise its own assessment methodology for the application of Louisiana water quality standards, independent of LDEQ. At a minimum,

Louisiana Chemical Association (continued)

LDEQ and EPA would have to agree on such assessment methodologies before adding waterbodies to the 303(d) lists based on such methodologies. In the absence of such an agreement - as is the instant case with respect to the methodology used to determine whether the state DO water quality standards have been met - LDEQ's interpretation must be given "controlling weight" unless such interpretation is clearly erroneous or inconsistent with the water quality standards themselves: provided, of course, that such LDEQ interpretation does not violate the federal constitution or statute.

The above-described LDEQ methodology for determining whether the state DO water quality standards have been met is not a clearly erroneous or inconsistent interpretation of the Louisiana water quality standards. It is specifically designed to account for the statement in the rules which provides that natural conditions may cause the criteria to be exceeded, and it is only human caused conditions that should be subject to control. LDEQ's methodology is clearly not violative of the federal constitution or statute. Thus, LAC submits that the LDEQ methodology should control and that any waterbodies included by EPA on the 303(d) Lists solely because of EPA's rejection of the controlling LDEQ methodology should be removed from the lists. Moreover, LCA submits that it is clearly inappropriate for EPA to add these waters to the list without making an independent verification that low DO conditions are human caused rather than caused by natural variation. Thus, at a minimum, even if EPA rejects LDEQ methodology, it should place these waters in Category 2 or 3 rather than Category 5 (303(d) List).

Louisiana State University, Ag Center, Paul D. Coreil, Vice Chancellor and Director

We have reviewed the Region 6 response to Louisiana's 2004 303(d) List and are pleased that in the most part you approved the list, the methodology and the rationale used in determining the streams to be placed on the list. However, we are very concerned about the decision by EPA to insist on the use of a 5 ppm DO standard for water bodies that support a population of sport fish. With Louisiana's low relief profile and it's proximity to the gulf many streams have a very low flow rates except after major rain events. When these streams are shallow and open to the summer sun it is impossible for them to sustain a 5 ppm DO level. With stream temperatures that may exceed 90°F, the water cannot hold that much oxygen without reaeration from stream flow and wind.

This standard for DO is clearly inappropriate for many streams in south Louisiana. We have protested the use of this standard on several previous TMDL Reports and ask again that a realistic standard be developed for this type of waterbody.

EPA's Response to Comments

1. Application of LDEQ's Dissolved Oxygen Methodology for Freshwaters Without Site Specific Criteria

The assessment methodology, adopted by LDEQ for purpose of evaluating those waters without site specific criteria for the Integrated Report, defines a water unimpaired for dissolved oxygen (DO) having a median concentration of greater than 5 mg/L with no more than ten percent of all samples less than 3 mg/L. This assessment methodology is applied to a series of daily grab samples collected generally once per month over a year. EPA does not agree that this assessment method is appropriate. EPA's primary concern is that the water quality standards establish a minimum of 5 mg/L as the criterion, not a median of 5 mg/L. Such an application can lead to numerous values less than the established minimum being allowed with out a finding of impairment.

LDEQ cites the language in the standards statement that, "Naturally occurring variations below the criterion specified may occur for short periods," as the basis for their interpretation. EPA finds that it cannot concur with this interpretation. EPA finds that the language as written, clearly is meant to interpret short term variations that occur as a result of the photosynthetic fluctuation within a normal diel cycle. Such daily fluctuation cannot be assessed using monthly instantaneous grab samples.

2. EPA's use of the Exact Binomial Test

Arguably, EPA's use of the Binomial Test does allow for DO concentrations below 5 mg/L. However, EPA did not premise its decision that DO concentrations below 5 mg/L are not allowed. As noted in the March 31, 2005 DECISION DOCUMENT FOR LOUISIANA'S 2002 §303(d) LIST, page 15 of 20, EPA guidance recommends that a "greater-than 10% exceedance percentage" be used for determining whether waters are meeting their designated use for aquatic life use support." Based on this guidance and accounting for uncertainty of the estimator of designated use support, DO data were reassessed using an Exact Binomial Test for Minimum Dissolved Oxygen for selected water bodies remaining in dispute between the State and EPA. Furthermore, both the Type I and Type II statistical errors were balanced giving equal weight for the listing/de-listing decisions with an allowable exceedance of 10 percent. This test was applied to reduce the possibility that waters would not be erroneously listed.

3. Development of TMDLs for Sub-segment Re-Listed

EPA acknowledges that LDEQ will not develop TMDLs for the sub-segments EPA has re-listed. Consequently, EPA is proceeding with developing the TMDLs for those sub-segments.

4. Independent Study to Determine that the DO Samples Exceeding the Criteria were not Caused by Natural Variation

In developing the Section 303(d) Lists, the states are required to assemble and evaluate all existing and readily available water quality-related data and information, including, at a minimum, consideration of existing and readily available data and information for the following categories of waters: (1) waters identified as partially meeting or not meeting designated uses, or as threatened, in the state's most recent section 305(b) report; (2) waters for which dilution calculations or predictive modeling indicate non-attainment of applicable standards; (3) waters for which water quality problems have been reported by governmental agencies, members of the public, or academic institutions; and (4) waters identified as impaired or threatened in any section 319 nonpoint assessment submitted to EPA. See 40 CFR 130.7(b)(5). In addition to these minimum categories, the states are required to consider any other data and information that are existing and readily available. EPA's 1991 Guidance for Water Quality-Based Decisions describes categories of water quality-related data and information that may be existing and readily available. See "Guidance for Water Quality-Based Decisions: The TMDL Process", EPA Office of Water, 1991, Appendix C ("EPA's 1991 Guidance"). While the states are required to evaluate all existing and readily available water quality-related data and information, the states may decide (based on a reasonable rationale) to rely or not rely on particular data or information in determining whether to list particular waters.

In addition to requiring the states to assemble and evaluate all existing and readily available water quality-related data and information, EPA regulations at 40 CFR 130.7(b)(6) require the states to include as part of their submissions to EPA documentation to support decisions to rely or not rely on particular data and information for decisions to list or not list waters. Such documentation needs to include, at a minimum, the following information: (1) a description of the methodology used to develop the list; (2) a description of the data and information used to identify waters; and (3) any other reasonable information requested by the Region. The State described in an attachment to its submittal titled "Rationale for Louisiana's DRAFT FINAL 2002 section 303(d) List of Impaired Water bodies and Integrated Report" how it used existing and readily available data in the preparation of Louisiana's §303(d) List for 2002.

Therefore, EPA is not required to conduct an independent study to determine whether the DO criteria are caused by natural variation. Rather, EPA's decision to partially approve and partially disapprove Louisiana's listing decisions was based on EPA's review of the data and information submitted concerning individual waters and the State's evaluations of those waters. See 40 CFR 130.7(d)(2).

5. EPA’s Approval Action

(a) As noted in the Decision Document for Louisiana's 2002 §303(d) List, Louisiana chose to combine the 2002 section 305(b) report and section 303(d) list into a

single report following EPA's listing guidance titled "Guidance for the 2002 Integrated Assessment and Reporting on the Quality of States' Waters" ("Integrated Report"). The Integrated Report included five categories as established in EPA guidance. Category 5, which is the 2002 section 303(d) list, was also included in the report. Category 5 is the only portion of the Integrated Report on which EPA took approval action. See Decision Document for Louisiana's 2002 §303(d) List, page 3 of 20.

(b) The "Guidance for the 2002 Integrated Assessment and Reporting on the Quality of States' Waters" does not substitute for those statutory provisions or regulations, nor is it a regulation itself. Thus, it does not impose legally binding requirements on EPA, states, or territories and may not apply to a particular situation based upon the circumstances. See 2002 Integrated Water Quality Monitoring and Assessment Report Guidance Memorandum, November 19, 2001. Consequently, the final action taken on Louisiana's 2002 303(d) List shouldn't be construed as a implicit approval of the State's de-listing from the Section 303(d) List (Category 5) and placing them in the other Categories (1 - 4).

6. EPA's Use of the 5.0 mg/L Dissolved Oxygen Criterion for Fresh Water and Coastal Marine Waters

EPA's use and application of the 5.0 mg/L dissolved oxygen (DO) criteria for fresh water and coastal marine waters is based on current water quality standards as found in LAC 33:IX.1113.C.3.a. and LAC 33:IX.1113.C.3.c. Therefore, EPA has no alternative but to use the established criteria as noted or site-specific criteria established as found in LAC 33:IX.1123.Table 3.

C. Louisiana's Integrated Report Category 4b Listings

Public Comments

Louisiana Department of Environmental Quality, Ms. Barbara Romanowsky, Adminstrator, Water Quality Assessment Division

On page 6 of the 2002 §303(d) List Decision Document, EPA recommends that Louisiana change the Integrated Report category for non-native aquatic plants from Category 4b to Category 3. Louisiana will not make this change. Category 3 is used for those water bodies where some doubt exists as to the exact nature of the impairment, its suspected sources, or its possible resolutions. In the case of non-native aquatic plants, there is no doubt as to the impairment caused by these invasive plants. The suspected sources, while diverse and often historical in nature, are well known. And the only possible resolution is through the efforts of the various programs already instituted in Louisiana. These programs were clearly delineated by Louisiana in its Integrated Report and 303(d) List Rationale. These programs were clearly acknowledged by EPA in their

2002 Decision Document. Any attempt to require and develop a TMDL for non-native aquatic plants, presumably aimed at nutrients, would prove costly, time consuming, and totally ineffective.

EPA's Response to Comments

As noted in the March 31, 2005 DECISION DOCUMENT FOR LOUISIANA'S 2002 §303(d) LIST, page 6 of 20, the State's decision not to include waters listed as impaired due to non-native aquatic plants on its 2002 Section 303(d) list is consistent with EPA regulations. See 40 CFR 130.7(b)(1). These waters were identified on the court ordered 1998 Section 303(d) list. 40 CFR 130.7(b)(1) provides that States are not required to list WQLSs still requiring TMDLs where effluent limitations required by the CWA, more stringent effluent limitations required by State or local authority, or other pollution control requirements required by State, local, or federal authority, are stringent enough to implement applicable water quality standards. The regulation does not specify the time frame in which these various requirements must implement applicable water quality standards to support a State's decision not to list particular waters.

While EPA is in agreement with the decision not to include waters listed as impaired due to non-native aquatic plants on Louisiana's 2002 Section 303(d) List, the placement of these waters in Category 4(b) is not consistent with EPA guidance due to the other pollution control mechanisms used for de-listing are not water body specific.[11] However, the 2002[12] and 2004[13] Integrated Water Quality Monitoring and Assessment Report Guidance documents don't constitute statutory provisions or regulations, nor is it a regulation itself. Therefore, they don't impose legally binding requirements on EPA, states, or territories. However, EPA acknowledges the State's reluctance and rationale for not placing these waters in Category 3.

[11] Specifically R.S. 56:10.1 established the Aquatic Plant Control Fund. Money from this fund is to be used by Louisiana Department of Wildlife and Fisheries (LDWF) to fund the aquatic plant control program and to fund cooperative research and education between LDWF and the Louisiana State University Agricultural Center. Another Louisiana law directed at non-native aquatic plants is R.S. 56:323. This law includes provisions banning the importation of these plants without a permit from LDWF. Permits are issued only for purposes of research. Recently, the Louisiana legislature created the Nuisance Aquatics Task Force for Louisiana. This task force, which includes representation from LDEQ, is charged with developing a management plan aimed at reducing or eliminating the impact of all aquatic invasive species, both plants and animals.

[12] 2002 Integrated Water Quality Monitoring and Assessment Report Guidance - Robert H. Wayland III - November 19, 2001. Available at http://www.epa.gov/owow/tmdl/policy.html.

[13] Guidance for 2004 Assessment, Listing and Reporting Requirements Pursuant to Sections 303(d) and 305(b) of the Clean Water Act, TMDL -01-03 - Diane Regas-- July 21, 2003. Available at http://www.epa.gov/owow/tmdl/policy.html.

D. EPA's Approval Action and the State's Integrated Report

Public Comments

PPG Industries, Inc. (Represented by Maureen N. Harbourt, Counsel to PPG Industries, Inc., Kean, Miller, Hawthorne, D'Armond, McCowan & Jarman, L.L.P.) and Louisiana Chemical Association

PPG submitted comments on the original and amended Louisiana Department of Environmental Quality's proposed 2002 Integrated Report which comprised the required Clean Water Act ("CWA") Section 305(b) Integrated Report, including the Section 303(d) list of impaired waters requiring a Total Maximum Daily Load ("TMDL"). These comments are attached hereto as Appendix A. LDEQ subsequently proposed revisions to the 2002 305(b) Integrated Report and PPG again submitted comments on the revised Integrated Report. These supplemental comments are attached hereto as Appendix B. The LDEQ based its 2004 Integrated Report on the 2002 Integrated Report, with changes only for updated information.

In its comments, PPG explicitly stated that the 2002 303(d) List and/or Rationale and the 305(b) report should more clearly state that when the state changes the category for a waterbody from Class 4a (TMDL already required) to a Class 1, the water is considered to be delisted as to that pollutant. PPG's discussion with both LDEQ and EPA Region 6 indicated this to be the case; however, EPA did not specifically address this issue in its decisions that partially approve and partially disapprove LDEQ's 2002 and 2004 303(d) Lists. PPG believes that EPA's decisions on the 2002 and 2004 List implicitly approve this approach, and PPG supports such decision. However, to avoid any misunderstanding, PPG requests that EPA clarify through written response to comments the following point: When a TMDL has been developed for a pollutant but the waterbody subsequently is classified by the state as Category 1 for a particular pollutant under the CALMs system, and EPA has not objected to that classification through this public comment and review process, then the state may remove any TMDL requirements from the Continuing Planning Process Document/Water Quality Management Plan.

Louisiana Chemical Association, Mr. Henry T. Graham, Jr., Director of Legal and Environmental Affairs

Louisiana Chemical Association (LCA) submitted comments on the original and amended Louisiana Department of Environmental Quality's proposed 2002 Integrated Report which comprised the required Clean Water Act Section 305(b) Report, including the Section 303(d) List of Impaired waters requiring a Total Maximum Daily Load ("TMDL"). LDEQ based its 2004 303(d) List on the 2002 303(d) List, with changes only for updated information.

In its comments, LCA explicitly stated that the 2002 303(d) List and/or rationale and the

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305(b) Report should more clearly state that when the state changes the category for a waterbody from Class 4a (TMDL already prepared) to a Class 1, the water is considered to be delisted as to that pollutant. LCA's discussion with both LDEQ and EPA Region 6 indicated this to be the case; however, EPA did not specifically address this issue in its decisions that partially approve and partially disapprove LDEQ's 2002 and 2004 303(d) Lists. LCA believes that EPA's decision on the 2002 and 2004 303(d) Lists implicitly approve this approach, and LCA supports such decision. However, so that there is no misunderstanding, LCA requests that EPA clarify through a written repsonse to comments that when a TMDL has been developed for a pollutant but subsequently the waterbody is classified by the state as Category 1 for that particular pollutant under the CALMs system and EPA has not objected to that classification through the public comment and review process, then the state any remove any TMDL requirements from the Continuing Planning Process Document/Water Quality Management Plan.

LDEQ followed EPA guidance in preparation of its 2002 and 2004 305(b) Integrated Reports through use of the EPA "Consolidated Assessment and Listing Methodology ("CALM"). The CALM categories used for development of the 2002 303(d) Lists are as follows:

CALM Category	**CALM Category Description**
Category 1	Attaining the water quality standard and no use is threatened
Category 2	Waterbody is attaining some of the designated uses and standards; no use is threatened; and insufficient data or data and information is available to determine if the remaining uses are attained or threatened.
Category 3	There is insufficient data or no data and information to determine if any designated use is attained.
Category 4a	Waterbody is impaired or threatened for one or more designated uses but does not require the development of a TMDL because a TMDL has been completed.
Category 4c	Waterbody is impaired or threatened for one or more designated uses but does not require the development of a TMDL because is not impaired by a pollutant.
Category 5	The water quality standard is not attained. The waterbody is impaired or threatened for one or more designated uses by a pollutant and requires a TMDL.

The purpose of the 305(b) Report is to categorize waterbody/pollutant combinations for purposes of the state's Continuing Planning Process ("CPP") and Water Quality Management Plan requirements under Section 303(d) of the Clean Water Act, 33 U.S.C. 1251, *et seq.* (the "CWA"). The CWA Section 303(d) List is a subset of the 305(b) Report. In providing guidance to states, EPA indicated that where a TMDL had been developed, states had discretion to remove the waterbody/pollutant combination from the 303(d) List but were not required to do so. EPA emphasized that if the waterbody/pollutant combination were removed from the 303(d) List, then "tracking the implementation of the TMDL is crucial." The guidance indicated that "EPA and States should ensure that mechanisms are in place to track previously listed waterbodies that

have been removed from a subsequent section 303(d) list" and that the mechanisms include the 305(b) Report and updates to State Water Quality Management Plans.

Section 303(d)(1)(A) of the CWA states:

> Each State shall identify those waters within its boundaries for which the effluent limitations required by section 1311(b)(1)(A) and section 1311(b)(1)(B) of this title are not stringent enough to implement any water quality standard applicable to such waters. The State shall establish a priority ranking for such waters, taking into account the severity of the pollution and the uses to be made of such waters.

The statute indicates that the list of waters under 303(d) is to consist of all impaired waters, which implies that those still not meeting standards are to remain on the list. However, the regulation implementing this statutory provision indicates that the 303(d) List only includes waters "still requiring a TMDL." 40 CFR 130.7. Thus, EPA guidance has allowed, but not required, a state to omit waterbody/pollutant combinations from the 303(d) List where a TMDL has been approved, provided the state classifies that waterbody/pollutant combination as a CALM 4a under the 305(b) Integrated Report as a means to track the implementation of the TMDL.

In May 2003, EPA adopted, *inter alia*, final TMDLs for the following waterbody/pollutant combinations in the Calcasieu Estuary System:

Bayou d'Inde, Segment 030901
- Copper
- Nickel
- Mercury
- Contaminated Sediment

Upper Calcasieu Estuary and Ship Channel, Segment 030301
- Copper
- Mercury

Louisiana Chemical Association (continued)

- Contaminated Sediment

Calcasieu River and Confluence with Marsh Bayou to Saltwater Barrier, Segment 030201

- Copper

Bayou Verdine, Segment 030306

- Mercury

LCA filed comments during the public comment period on the proposed TMDLs, objecting to these TMDLs for a number of data quality, evidentiary, and legal reasons. In its comments, LCA referenced new data not considered by EPA's contractor in the TMDL development process, consisting of clean techniques monitoring data for copper and fish residue testing for mercury. This data clearly showed no impairment of these waters for copper or mercury. EPA's response to comments did not mention or discuss the mercury fish tissue data, and EPA later indicated that the contractor did not review such data in preparing the response to comments. Thus, the mercury fish tissue data has never been specifically reviewed by EPA in the context of the TMDL development.

EPA acknowledged in the Federal Register notice of its action that the deadlines established in the Settlement Agreement in Sierra Club v. Clifford did not allow EPA to expand the public comment period, "however, EPA will continue to accept information regarding potential errors in the TMDLs, and/or to meet with parties to discuss potential errors." 67 Fed. Reg. at 40735. In a subsequent meeting between EPA, LDEQ, and PPG Industries, Inc. at Region 6, it was noted that the process of revision to LDEQ's 305(b) Report and 303(d) List provided a vehicle for making appropriate changes to the TMDLs. At the time, LDEQ was in the process of preparing its 2002 report/list.

In its original proposal for the 2002 305(b) Integrated Report, LDEQ classified Bayou d'Inde and both of the above segments of the Calcasieu Ship Channel as a Category 1 (meeting standards and no impairment) for copper; LDEQ classified Bayou d'Inde as a Category 1 for nickel. LDEQ classified Bayou d'Inde, Bayou Verdine, and the Calcasieu Ship Channel as a Category 4a for mercury; LDEQ also classified Bayou d'Inde and the Calcasieu Ship Channel as a Category 4a for contaminated sediments. LCA submitted comments supporting the Category 1 classification for copper and nickel in these waters. LCA's comments indicated that LDEQ had demonstrated good cause under 40 CFR Section 130.7(b)(6) for delisting copper and nickel for these waters. LCA's comments requested that LDEQ changed the classification for mercury and contaminated sediments for the applicable waters above from a Class 4a to a Class 1, because there was good cause under 40 CFR 130.7(b)(6) for delisting these pollutants and not requiring a TMDL. A copy of LCA's comments and supporting attachments were attached (Attachment A).

Louisiana Chemical Association (continued)

LDEQ agreed with LCA's comments in the final 2002 305(b) Integrated Report and changed the classification of Bayou d'Inde, Bayou Verdine and the Calcasieu Ship Channel for mercury from a Category 4a classification to a Category 1 classification. Similarly, the classification of Bayou d'Inde and the Calcasieu Ship Channel was changed from Category 4a to Category 1 for contaminated sediments. These changes were
specifically highlighted in the final draft. The same classifications were carried forward to the 2004 Integrated Report.

In its proposed decision on EPA's 2002 and 2004 303(d) Lists, EPA does not mention any of these changes. LCA believes that EPA has agreed with these changes because EPA guidance allows a state to omit a waterbody/pollutant combination from the Category list only if it is included on the 305(b) Integrated Report as a Category 4a. As LDEQ has indicated that these waterbody/pollutant combinations are Category 1 - indicative of no impairment from such pollutants - LCA believes that this is appropriate for LDEQ to make corresponding revisions to its CPP and Water Quality Management Plan by deleting any TMDL requirement. However, LCA seeks clarification.

EPA's Response to Comments

As noted in the Decision Document for Louisiana's 2002 §303(d) List, Louisiana chose to combine the 2002 section 305(b) report and section 303(d) list into a single report following EPA's listing guidance titled "Guidance for the 2002 Integrated Assessment and Reporting on the Quality of States' Waters" ("Integrated Report"). The Integrated Report included five categories as established in EPA guidance. Category 5, which is the 2002 section 303(d) list, was also included in the report. Category 5 is the only portion of the Integrated Report on which EPA takes approval action. See Decision Document for Louisiana's 2002 §303(d) List, page 3 of 20. Furthermore, the "Guidance for the 2002 Integrated Assessment and Reporting on the Quality of States' Waters" does not substitute for those statutory provisions or regulations, nor is it a regulation itself. Thus, it does not impose legally binding requirements on EPA, states, or territories and may not apply to a particular situation based upon the circumstances. See *2002 Integrated Water Quality Monitoring and Assessment Report Guidance Memorandum*, November 19, 2001. Therefore, the final action taken on Louisiana's 2002 303(d) List shouldn't be construed as an implicit approval of the State's de-listing waters from the 303(d) List (Category 5) and placing them in the other Categories (1 - 4). Category 5 is the only portion of the Integrated Report on which EPA took final approval action and doesn't infer that the TMDLs are voided.

E. EPA's Decision to Re-List Waters

Public Comments

Gulf Restoration Network, Vicki E. Murillo, Program Director for Water Resources

> Within the decision document for Louisiana's 2004 List, the decision to add waters to the 2002 List is also discussed. It is unclear from this discussion whether the 69 water body-pollutant combinations that EPA has identified for inclusion in the 2002 List have also been included in the 2004 List. It would seem as though they should be added to the 2004 List as well unless there was new data collected between the two listing periods that revealed that the water body was no longer impaired or if a Total Maximum Daily Load (TMDL) had been completed in the interim. We find it hard to believe that one of these two conditions apply to every one of the 69 2002 additions, therefore we ask these water body-pollutant combinations be included in the 2004 List as well, if they haven't already been added.

EPA's Response to Comments

> EPA's final action approved the States decisions to list all the water bodies and associated pollutants identified in the Final Louisiana 2002 303(d) List submission and associated priority rankings. However, EPA disapproved the States 2002 List decision not to list 44 waters (or 69 water body-pollutant combinations). Therefore, EPA included these additional water bodies and pollutants with appropriate priority rankings on Louisiana's 2002 303(d) List. These 69 re-listed water body-pollutant combinations were combined with waters identified in EPA's final action for Louisiana's 2004 303(d) List

F. Improper Interpretation of Bacteria Criteria

Public Comments

Gulf Restoration Network, Vicki E. Murillo, Program Director for Water Resources

> As EPA pointed out in its decision to require the inclusion of many segments based on a finding on non-support for dissolved oxygen, it is essential that the Louisiana Department of Environmental Quality's (DEQ) assessment method be based on its water quality standards. We believe that the DEQ improperly interpreted its bacteria criteria when making decisions to remove water body impairments from the 2002 and 2004 Lists. We offer up the following comments to support our argument that EPA should require the inclusion of additional waters impaired for bacteria.
>
> According to Louisiana's water quality standards , in order to show that a water body is

not contaminated with pathogens (i.e. total fecal coliform), the following criteria must be met for primary contact recreation:

> Based on a minimum of not less than five samples taken over not more than a 30-day period, the fecal coliform content shall not exceed a log mean of 200/100 mL, nor shall more than 10 percent of the total samples during any 30-day period or 25 percent of the total samples collected annually exceed 400/100 mL. These primary contact recreation criteria shall apply only during the defined recreational period of May 1 through October 31. During the nonrecreational period of November 1 through April 30, the criteria for secondary contact recreation shall apply (emphasis added).

Similar wording applies to the secondary contact recreation criteria. It is clear from the above criteria that at least five water quality samples taken in a 30-day time period are necessary to conclude that waters are not polluted with bacteria.

In the GRN's report titled "Dubious De-Listings: Louisiana's Push to Remove Protections for Polluted Waters," it made the argument presented above. The DEQ's response to this report submitted to Cynthia Sarthou on July 29, 2002 argued that the GRN ignored the portion of the criteria stating, "…nor shall more than 10 percent of the total samples during any 30-day period or 25 percent of the total samples collected annually exceed 400/100 mL." However, it was not ignoring a portion of the criteria, but simply pointing out that the DEQ has disregarded the requirement of basing water quality decisions for bacteria on at least 5 samples a month. Although the DEQ stated in its response to the Dubious De-listings report that they have always interpreted the criteria "…to mean that any of the three assessment methods may be used," the wording of the criteria clearly
states otherwise. According to the English definition of the word nor, there can be no other interpretation of this passage than the one stating that the portion preceding the word nor is a requirement, along with one of the two portions occurring after the word nor. Therefore, the DEQ must include an analysis of the log mean of total fecal coliform based on at least 5 samples taken over a 30 day period and use either the 10 or 25 percent rule.

According to Louisiana's 2002 Draft Integrated Report for All CALM Categories, 87 subsegments previously listed in the Court-ordered 1999 Section 303(d) list for pathogen indicators were reclassified as attaining water quality standards for bacteria (CALM Category 1) based on new data (see Attachment A). Since DEQ declared these segments to be attaining water quality standards using samples collected only once a month, instead of the required 5 times per month, they were improperly excluded from the 2002 List. In DEQ's response to comments submitted on this issue in December of 2002, they stated, "monthly sampling is typically used as a screening tool to identify water bodies

that may be impaired due to bacterial criterion exceedances." However, by not including the 87 water bodies previously identified as contaminated for pathogens in Attachment A on the 2002 List, this monthly sampling method was not used as a screening tool. It was used in a much more significant way; to determine that an impaired water was no longer impaired. This is not appropriate. The exclusive use of the 25% rule to determine impairment status is not scientifically sound.

If the DEQ is using one sample collected each month over the course of a year, then 4 samples would have to exceed the maximum fecal coliform count in order to be considered impaired (i.e. 3 out of 12 would be 25%, but the criteria refers to exceeding 25%, hence 4 samples would have to exceed which actually amounts to a 33% exceedance). Using this method alone could result in many impaired waters being excluded from the 303(d) list. First of all, due to varying conditions throughout the year and the fact that there are critical conditions for bacteria contamination, it would be very easy to miss problems simply as a result of the very small sample size.

Furthermore, relying solely on an instantaneous maximum criterion is very risky, even more so when samples are collected so infrequently. Under the DEQ's current interpretation, the counts could consistently run between 200/100 mL and 400/100 mL and be considered unimpaired, even though the log mean would be greater than 200/100 mL. The bottom line is that a method that should only be used as a screening tool or in conjunction with a log mean criterion was used to delist many impaired water bodies.

We realize that the "25% rule" for assessing potential fecal coliform impairment is codified in Louisiana's water quality standards. However, we disagree that this rule can be used as the sole basis for making assessments with regard to fecal coliform. The literal wording of the standards clearly indicates that the "25% rule" is only a portion of the criteria and must be used in conjunction with a log mean. Furthermore, the DEQ's application of this rule is likely resulting in impaired waters not receiving the cleanup they need. Therefore, we request that EPA require all 87 of the segments listed in Attachment A to be included in the 2002 and 2004 Lists until it is determined that they are meeting all requirements of the criteria as clearly stated in the state's Environmental Regulatory Code in effect at the time.

EPA's Response to Comments

The bacteria criteria cited was adopted by the State based on EPA's (previously the Federal Water Pollution Control Administration) recommended criteria for Primary Contact Recreation.[14] The criteria language does pose a challenge due to the multiple

[14] Federal Water Pollution Control Administration. 1968. Water quality criteria: report of the national technical advisory committee of the secretary of the interior. PP11-14

conditional statements. However, we disagree with the conclusion reached by the commenter regarding the negated disjunction "or." The word "or" can be used in two senses, *inclusive* (weak) sense and the *exclusive* (strong) sense. The *inclusive* "or" has sense of either, possibly both. Where precision is required, such as contracts and legal documents, this sense is made explicit by the use of the phrase "and/or." Where the word "or" is used in the *exclusive* sense, the meaning is not "at least one" but "at least one and at most one." Where precision is required, the *exclusive* sense of "or" is intended and the phrase "but not both" is usually added.

In general, only on a close examination of the context, or an explicit questioning of the writer, can reveal which sense of "or" is intended. In instances where this problem is difficult to resolve, standard convention treats any occurrence of the word "or" as *inclusive* unless stated otherwise. Consequently, with the treatment of the conditional disjunctions in the Primary Contact Recreation Use standard as in the *inclusive* sense, the standard may be evaluated based on available data using either the monthly geometric mean or single maximum bacteria criteria or both.

As is common practice among many states, the State of Louisiana routinely collects only one bacteria sample per month. The collection of one sample per month supports the assessment of the Primary Recreational Use by use of the 400/100 mL single sample maximum bacteria criterion. See LAC 33:IX.1113.C.5.b.i. Therefore, EPA has concluded that based on available data, the State's assessment of the Primary Contact Recreational Use by use of the single sample maximum bacteria criterion was appropriate.

G. Insufficient Metals Data

Public Comments

Gulf Restoration Network, Vicki E. Murillo, Program Director for Water Resources

In its Integrates Report Rationale, DEQ states:

> A minimum of four ambient samples was required to make an assessment of full support. However, if two criterion exceedences occurred for the same metal and only two or three samples were taken during the year, the water body was considered potentially impaired. If only three samples were collected, with zero or one criterion exceedence for the same metal, the water body was considered as having insufficient data to make a metals assessment.

According to the 1997 EPA guidance document, "Guidelines for Preparation of the Comprehensive State Water Quality Assessments (305(b) Reports) and Electronic Updates: Supplement," for a water body to be considered fully supporting designated uses with regards to metals and other toxicants, there can be no more than one

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exceedance of acute and chronic criteria with in a 3-year period. Moreover, these methods of determining use support "assume at least 10 samples over a 3-year period. If fewer than 10 samples are available, the State should use discretion and consider other factors such as the number of pollutants having a single violation and the magnitude of the exceedance(s)."

Based on DEQ's reliance on fewer than the recommended number of samples for metals, we believe that many of the water bodies impaired for metals may have been delisted without sufficient data. We also believe that those water bodies considered "potentially impaired" using DEQ's current assessment procedures should be listed as Category 5, if they are not already listed as such. Therefore, we request that EPA investigate this issue and make sure any water bodies improperly delisted for metals are added to the appropriate list(s). Considering the serious impacts that metals can have on the public and aquatic life, this an area in which the agencies should be especially cautious when it comes to delisting.

EPA's Response to Comments

1. Data Analyses for Metals-in-Water

For clarification, the State's metals-in-water use support decision provides that if two (out of four possible) sample results indicate potential impairment, as indicated by criteria exceedences, the water body is flagged for follow-up intensive clean metals sampling, including quality control sampling at every site. The final use support decision will be based solely on data collected under the more rigorous follow-up clean metals project. See Section D3, Quality Assurance Project Plan for the Ambient Water Quality Monitoring Network, Prepared by Louisiana Department of Environmental Quality, June 11, 2004, Revision: 2. Furthermore, in those instances where a water body had previously been Listed on Attachment A of the April 1, 2002 Consent Decree, Sierra Club and Louisiana Environmental Action Network v. Gregg A, Cooke, Regional Administrator, and less than three samples had been collected with no exceedances noted, in lieu of de-listing for lack of data, the water bodies remained on Category 5 (Section 303(d) List) until such time as additional samples were collected.

2. EPA Guidance Regarding Sample Size for Metals and Other Toxicants

The "Guidelines for Preparation of the Comprehensive State Water Quality Assessments (305(b) Reports) and Electronic Updates: Supplement," does not substitute for those

statutory provisions or regulations, nor is it a regulation itself. Therefore, it does not impose legally binding requirements on EPA, states, or territories and may not apply to a particular situation based upon the circumstances.

3. EPA's Evaluation of the Metals-in-Water Data

During the 2002 and 2004 303(d) Listing cycles, EPA in cooperation with the State of Louisiana evaluated all of the metals-in-waters data for both fresh and marine waters. Based on these evaluations, corrections were made to both draft 2002 and 2004 303(d) Lists. Additionally, EPA re-listed five (5) water body-combinations for the marine dissolved copper chronic standard.

H. Missing Listing for Selsers Creek

Public Comments

Gulf Restoration Network, Vicki E. Murillo, Program Director for Water Resources

We believe that Selsers Creek (LA040603) is missing a listing for lead in the 2002 and 2004 Lists. It was listed as impaired in the 2002 305(b) report for this pollutant. Therefore, the GRN requested that DEQ include it in the 303(d) list in our original comments dated December 16, 2002. In response, DEQ stated, "all discrepancies reported by the comment will be checked and corrected as needed." Apparently that correction was made because Selsers Creek for lead appeared on the August 20, 2003 version of the Final 2002 list that was released for a second round of public comments. However something happened between August and December and that listing was removed. When the GRN commented in March of 2004 that this listing was missing, DEQ responded, "this subsegment was not listed for lead in the 2002 Integrated Report." While it is true that it was not listed in the Final December 2003 version of this list, it did in fact appear on the August 2003 version. We request that EPA investigate the DEQ's justification for removing this listing and add it back on the 2002 and 2004 Lists if it is found to have been improperly delisted.

EPA's Response to Comments

The original listing of sub-segment LA040603 was in error. EPA re-evaluated the metals-in-water data for sub-segment LA040603. Based on data that was collected by the State of Louisiana for the period January - December 2001, 1 of 3 samples collected exceeded the dissolved lead chronic criteria. Thus, the decision not to list sub-segment LA040603 for Dissolved Lead was appropriate.

I. Missing Nutrients and Dissolved Oxygen Listings for Coastal Waters

Public Comments

Gulf Restoration Network, Vicki E. Murillo, Program Director for Water Resources

> The EPA should also take action to require the listing of all those Louisiana coastal waters impaired for nutrients and dissolved oxygen as a result of the well-documented annual phenomenon of Gulf hypoxia. Louisiana has designated subsegments encompassing coastal bays and Gulf waters for each of its coastal basins. However, DEQ failed to list these segments as impaired for nutrients and dissolved oxygen, even though many of these waters, such as the Mississippi River Basin Coastal Bays and Gulf Waters to State Three-Mile Limit (LA070601), are impacted by Gulf hypoxia. Furthermore, the Terrebonne Basin Coastal Bays and Gulf Waters to State Three-Mile Limit subsegment (LA120806) was listed on the 1999 Consent Decree for nitrogen, nutrients, and phosphorus. Yet none of these listings appear on the 2002 and 2004 Lists. Therefore, we ask that EPA thoroughly investigate this matter and require the listing of all coastal bays and gulf waters subsegments in Louisiana that are impaired for nutrients and dissolved oxygen as a result of Gulf hypoxia.

Natural Resource Defense Council, Nancy Stoner, Director, Clean Water Project

> On behalf of the Natural Resource Defense Council, I write to reiterate our concern - expressed in the attached July 27, 2004, letter to Mr. Willie Lane - that the State of Louisiana's proposed 303(d) lists for 2002 and 2004 do not include coastal waters impaired due to hypoxia. It as now come to our attention that although EPA intends partially to disapprove Louisiana's 303(d) submittals and to identify additional impaired waters, the agency's lists of proposed additions include no *coastal* waters impaired due to nutrient levels and/or hypoxia.
>
> As I indicated in the attached letter, Gulf hypoxia "clearly causes a violation [and] impairs the designated uses of these waters generally, and violates the applicable dissolved oxygen criteria specifically." It is therefore troubling that both Louisiana and U.S. EPA continue to omit coastal waters impaired due to nutrient and/or hypoxia from the State's 303(d) list. Accordingly, NRDC repeats its request that EPA (1) disapprove Louisiana's 303(d) list as incomplete; (2) assess Louisiana's coastal waters to ensure that all water segments impaired due to nutrients or hypoxia are properly included on the State's list.

EPA's Response to Comments

1. Reasonable Steps to Solicit All Existing and Readily Available Water Quality-Related Data and Evaluation of Dissolved Oxygen Data

EPA determined that Louisiana took reasonable steps to solicit all existing and readily available water quality-related data and information from members of the public and government agencies via the public participation for Louisiana's 2002 Integrated Report by the State of Louisiana as outlined:

(a) Issued first public notice requesting comments on draft 2002 §303(d) List. Rationale for development of the 303(d) list was also included in the information available for public review. Notice was placed in newspapers on or about October 11, 2002. The actual date of publication was determined by newspaper printing date, with conclusion of notice period calculated to be at least 30 days from date of last publication. Notices were placed in the following newspapers:

Baton Rouge, The Advocate (official State journal)
Lake Charles American Press
Lafayette, The Advertiser
Monroe New-Star
Alexandria, The Town Talk
Shreveport, The Times
New Orleans, The Times-Picayune

(b) First public comment period ran until November 14, 2002. Documents and data relative to this public comment period were placed on the LDEQ web site for review by the public.

(c) At the request of some commenters, LDEQ extended the deadline for submittal of public comments. This was done through a second public notice in the newspapers. The newspaper notices were issued on or about November 15, 2002, with the extension running through December 16, 2002. Documents and data relative to this public comment period were placed on the LDEQ web site for review by the public.

(d) Following conclusion of the first two public comment periods, LDEQ made extensive revisions to the 2002 Integrated Report. Because of these revisions, a third public notice request for comments was issued on May 27, 2003. This third notice extended until June 30, 2003. At the conclusion of this third notice period a response to comments document

was prepared and included in the first 2002 Integrated Report submitted to EPA on August 21, 2003. Documents and data relative to this public comment period were placed on the LDEQ web site for review by the public.

(e) Based on extensive discussions with EPA Region 6, corrections to Louisiana's final 2002 Integrated Report were submitted to EPA Region 6 on December 10, 2003. This became Louisiana's final 2002 Integrated Report.

EPA reviewed Louisiana's description of the data and information it considered, its methodology for identifying waters, and the State's responsiveness summary dated December 8, 2003. EPA concluded that the State properly assembled all existing and readily available data and information, including data and information relating to the categories of waters specified in 40 CFR 130.7(b)(5).

EPA re-evaluated all available dissolved oxygen data resulting in the re-listing of 39 waters (or 64 water body-pollutant combinations) for dissolved oxygen for the 2002 303(d) Listing cycle and 14 waters (or 17 water body-pollutant combinations) for the 2004 303(d) Listing cycle.

2. Terrebonne Basin Coastal Bays and Gulf Waters to State Three-Mile Limit Sub-segment LA120806

EPA has re-evaluated the Dissolved Oxygen data for Sub-Segment No. LA120806. Based on data that was collected by the State of Louisiana for the period January 2000 through December 2000, 0 of 12 samples collected exceeded the Dissolved Oxygen criterion of 5.0 mg/L Minimum. Thus, the decision not to List Sub-Segment LA120806 for Dissolved Oxygen was appropriate.

3. Evaluation of Dissolved Oxygen Data for Coastal Waters

EPA's decision to partially approve and partially disapprove Louisiana's listing decisions was based on EPA's review of the data and information submitted concerning individual waters and the State's evaluations of those waters. See 40 CFR 130.7(d)(2).

EPA reviewed Louisiana's description of the data and information it considered, its methodology for identifying waters, and the State's responsiveness summary dated December 8, 2003. EPA concluded that the State properly assembled all existing and readily available data and information, including data and information relating to the categories of waters specified in 40 CFR 130.7(b)(5).

EPA re-evaluated all available dissolved oxygen data during the 2002 and 2004 Section 303(d) Listing cycles which included coastal water sub-segments. Based on EPA's re-evaluation, sub-segment LA050901 (Mermentau River Basin Boat from Joseph Harbor Bayou) was not meeting applicable dissolved oxygen criterion but a TMDL for dissolved oxygen and nutrients was prepared, approved and subsequently the sub-

segment was de-listed. See http://www.epa.gov/earth1r6/6wq/ecopro/latmdl/ftnbigconstance.pdf. Furthermore, during the 2006/2008 303(d) Listing/De-listing Cycle, EPA will work cooperatively with the State of Louisiana to gain access to a broader universe of dissolved oxygen data for coastal waters to evaluate the current status of water quality.